

8.1.3.g *Mira Mesa Market Center (C 27)*

Site Description and Existing Conditions

Mira Mesa Market Center (C 27) is located along Hillery Drive, southwest of the Interstate 15/Mira Mesa Boulevard intersection. The basin and watershed (231 m² [2486.4631 ft²]) of one vernal pool was conserved during development of the Mira Mesa MarketCenter (LDR 96-7371) and is owned by the HOA. The U.S. Fish and Wildlife Service issued Biological Opinion 1-6-98-F-23 regarding Mira Mesa MarketCenter, which did not require any on-site preservation; however, the conservation of this single basin was included as a condition of permit approval by the San Diego City Council. The site is zoned Residential and is not within the MHPA; surrounding land uses include transportation, commercial, residential and undeveloped land.

The vernal pool at Mira Mesa Market Center is of natural origin, and occurs in Redding gravelly loam. Coastal sage scrub species have been planted in the vernal pool watershed; *P. abramsii* and *B. sandiegonensis* were observed in 2003.

Prior to surrounding development and vernal pool conservation, the site was impacted by dumping, trespassing, military maneuvers and off-road vehicles. Sixty-three vernal pools, including some inhabited by *B. sandiegonensis*, were directly impacted by Mira Mesa MarketCenter.

Threats

Development

Vernal pools in the C 27 series were impacted during the construction of surrounding developments and the remaining basin—the existing Mira Mesa MarketCenter site—was conserved as a condition of permit approval by City Council.

Invasive Species

Ornamental plantings may invade the preserved area from nearby landscaping.

Edge Effects

The Mira Mesa MarketCenter vernal pools are bounded on all sides by development. Impacts may occur from litter, unauthorized access, trash, etc. In particular, litter has accumulated in the basin and unnatural drainage from nearby sprinklers may be affecting the pools hydrology.

Fire and Fire Suppression

Given the developed surroundings, it is unlikely that this area would be impacted by wildfire or fire suppression activities.

Required Management Activities

The current management activities discussed in this section are conditions of project approval for the Mira Mesa MarketCenter project (LDR 96-7371). The mitigation in the Mira Mesa MarketCenter EIR and U.S. Fish and Wildlife Service Biological Opinion 1-6-98-F-23 assumes no on-site preservation. A single basin was preserved and fenced per the request of City Council during the project hearing.

Off-site mitigation included preservation of the Gleich parcel on Del Mar Mesa and preservation and restoration activities at Mesa Norte.

The Mira Mesa MarketCenter pool has been fenced, and interpretive signage has been installed.

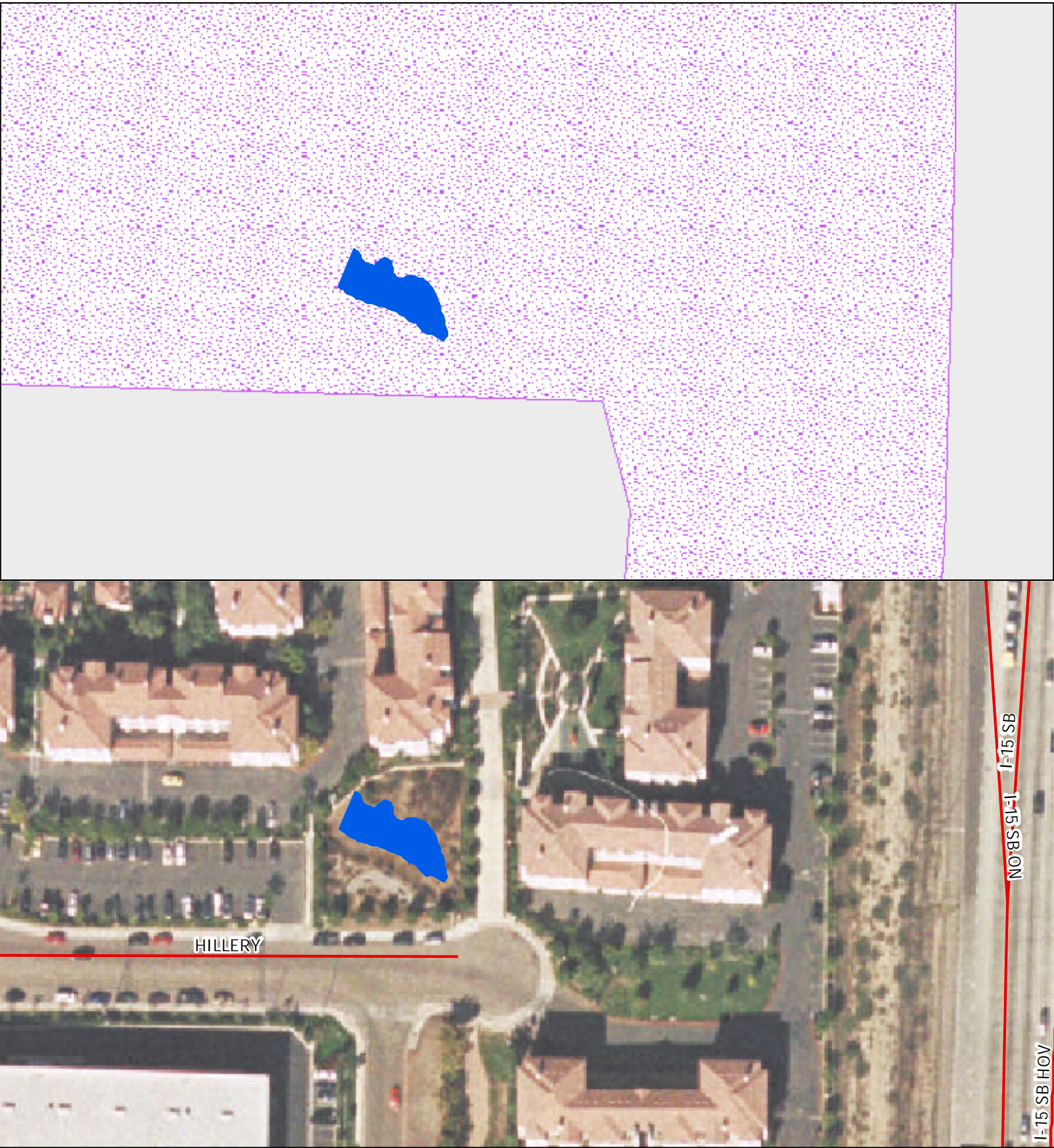
Management Recommendations

If active management is necessary, it is recommended that volunteers and/or “Friends” groups be utilized for species surveys, litter patrols, weeding, etc. Due to the sensitivity of the habitats, adequate training shall be provided and crews shall be supervised by a qualified biologist.

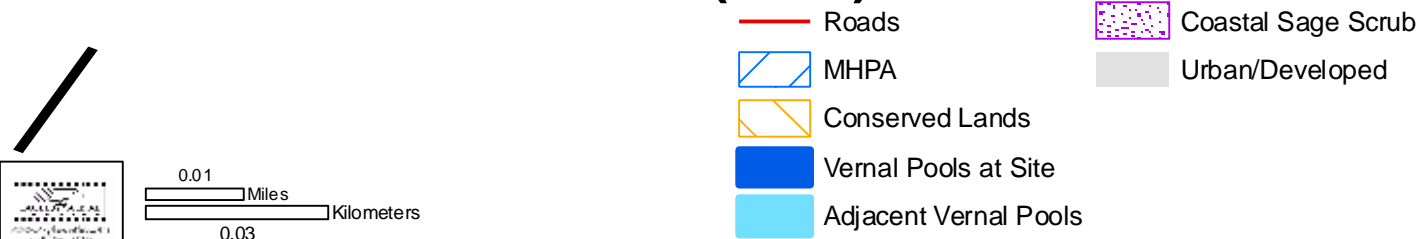
Given the proximity of residential neighborhoods, it is recommended that educational programs be provided through local schools, Home-Owner’s Associations (HOAs), community groups, etc. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate a sense of ownership of local open space, with the overall goal of developing positive neighborhood awareness of the preserve.

The Land Manager should encourage research studies, including projects to assess the impact of edge effects and isolation on vernal pool habitats and their associated species.

Figure 15



Mira Mesa Market Center (C 27)



Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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3.1.3.h *Jonas Salk Elementary (C 28)*

Site Description and Existing Conditions

Jonas Salk Elementary (C 28) is a 13-acre site in Mira Mesa owned by the San Diego Unified School District. It is located south of Mira Mesa Boulevard along Parkdale Avenue. Maddox is located adjacent to the MHPA; the area is not conserved and is the site of the proposed Jonas Salk Elementary School (formerly Mason Hague). The site is zoned for elementary schools, and surrounding land uses include transportation, residential and MHPA/open space.

Eighty-two vernal pools (3,193 m² [.789 acres]) were mapped in 2003. The origin of these basins has been debated; theories include natural formation or cut-and-fill activities from adjacent developments. Upland vegetation is ruderal and disturbed coastal sage scrub. No sensitive plant species were observed, but *B. sandiegonensis* occur in three basins.

The site is currently used as an unofficial walking area, dog park and BMX track. This site is proposed for the development of the Jonas Salk Elementary School.

Threats

Development

Direct and/or indirect impacts may occur to vernal pools during the development of Jonas Salk Elementary School.

Invasive Species

Non-native species occur throughout this site.

Edge Effects

These vernal pools are bounded on three sides by development. Litter, dumping, isolation and trespass are likely to impact the basins.

Fire and Fire Suppression

The site may serve as a staging area in the event of a fire; however, following development of the proposed school, it is unlikely that the site will be impacted by fire or fire-fighting activities.

Required Management Activities

No management activities are currently required for this site.

Management Recommendations

Provide and maintain fencing and signage to minimize impacts from current uses. Conduct litter patrols as necessary. Remove invasive species and re-vegetate vernal pools and uplands with appropriate native vegetation.

If the maintenance patrols determine that active management is necessary, volunteer and/or “Friends” groups may be utilized for species surveys, litter patrols, weeding, etc. Due to the sensitivity of the habitats, adequate training shall be provided and crews shall be supervised by a qualified biologist.

The Land Manager should encourage research studies, including projects to assess the impact of edge effects and isolation on vernal pool habitats and their associated species.

Given the proximity of the site to residential neighborhoods, it is recommended that educational programs be provided through local schools, Home-Owner's Associations (HOAs), community groups, etc. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate a sense of ownership of local open space, with the overall goal of developing positive neighborhood awareness of the preserve.

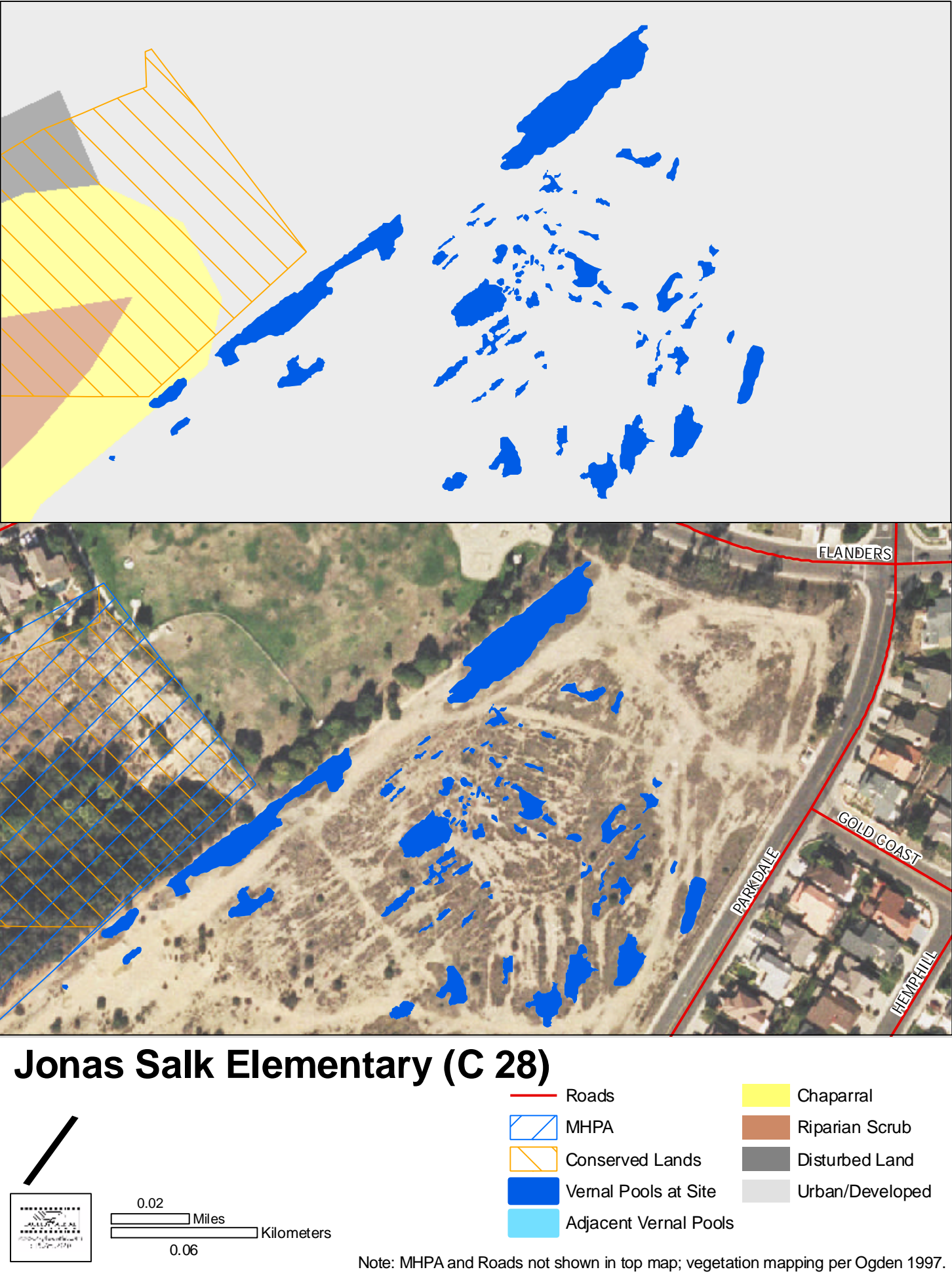
If an on-site vernal pool preserve is required as mitigation for future project(s), the area shall be designed to maximize connectivity to the MHPA and preserve an area sufficient to protect both vernal pool basins and associated watersheds.

If impacts to vernal pools are approved, the mitigation shall include vernal pool and watershed restoration. In order to ensure long-term success, the mitigation shall include restoration, invasive species removal, fencing and signage, litter removal, monitoring and a fire management plan. An endowment or comparable funding mechanism should be set aside for the management of on- and/or off-site mitigation site(s) in perpetuity.

Any development and/or on-site mitigation areas at this site shall conform to the following conditions:

- 1) Invasions of non-native species into the conserved areas will be removed utilizing non-mechanized means.
- 2) Lighting will not be installed within conserved areas and, in adjacent development, will be shielded to direct spillage away from vernal pool areas.
- 3) Grading, development and landscape irrigation will be completed in a manner to avoid unnatural drainage to vernal pools during and after construction.
- 4) Any trails developed with this project will be sited and fenced, where necessary, to avoid user impacts to vernal pools.
- 5) Trash removal will occur at regular intervals or as necessary.

Figure 16



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8.1.3.i *Parkdale Carroll Canyon (D 5-8)*

Site Description and Existing Conditions

Parkdale Carroll Canyon (D 5-8) is located adjacent to the Carroll Canyon Vernal Pool Preserve at the southern terminus of Parkdale Avenue in Mira Mesa. These four vernal pools occur on land that is dedicated open space, owned by the City of San Diego Park and Recreation Department; however, it is outside the limits of the fence constructed around the Carroll Canyon Vernal Pool Preserve. Parkdale Carroll Canyon is within the MHPA and surrounding land uses include transportation and residential development and open space.

Four vernal pools (83.55 m² total basin area [8.99.3 ft²]) at Parkdale Carroll Canyon are of natural origin and are underlain by Redding gravelly loam. Upland areas are dominated by chamise chaparral. A single vernal pool indicator, *Psilocarphus brevissimus*, was observed in 2003; no sensitive plant or animal species occur at this site.

The adjacent site (Carroll Canyon) was preserved in 1991 and a fence was installed around the entire parcel. Minimal impacts were observed at Parkdale Carroll Canyon during surveys in 2003.

Threats

Development

This site is owned by the City of San Diego Park and Recreation Department and is dedicated open space. Any development proposals would be evaluated based on development regulations associated with current land use zoning.

Invasive Species

Invasive species do not appear to be a major threat; however, species from adjacent residential communities may colonize the site.

Edge Effects

The Parkdale Carroll Canyon vernal pools are adjacent to residential development. Impacts may occur from litter, unauthorized access, trash, etc. The site is fenced and impacts appear to have been minimal. The site is contiguous with the Carroll Canyon site which minimizes possible effects of isolation.

Fire and Fire Suppression

It is unlikely that wildfire or fire suppression activities will impact an urban site such as Parkdale Carroll Canyon.

Required Management Activities

No management activities are required for this site. It was fenced during preservation of the adjacent Carroll Canyon Vernal Pool Preserve.

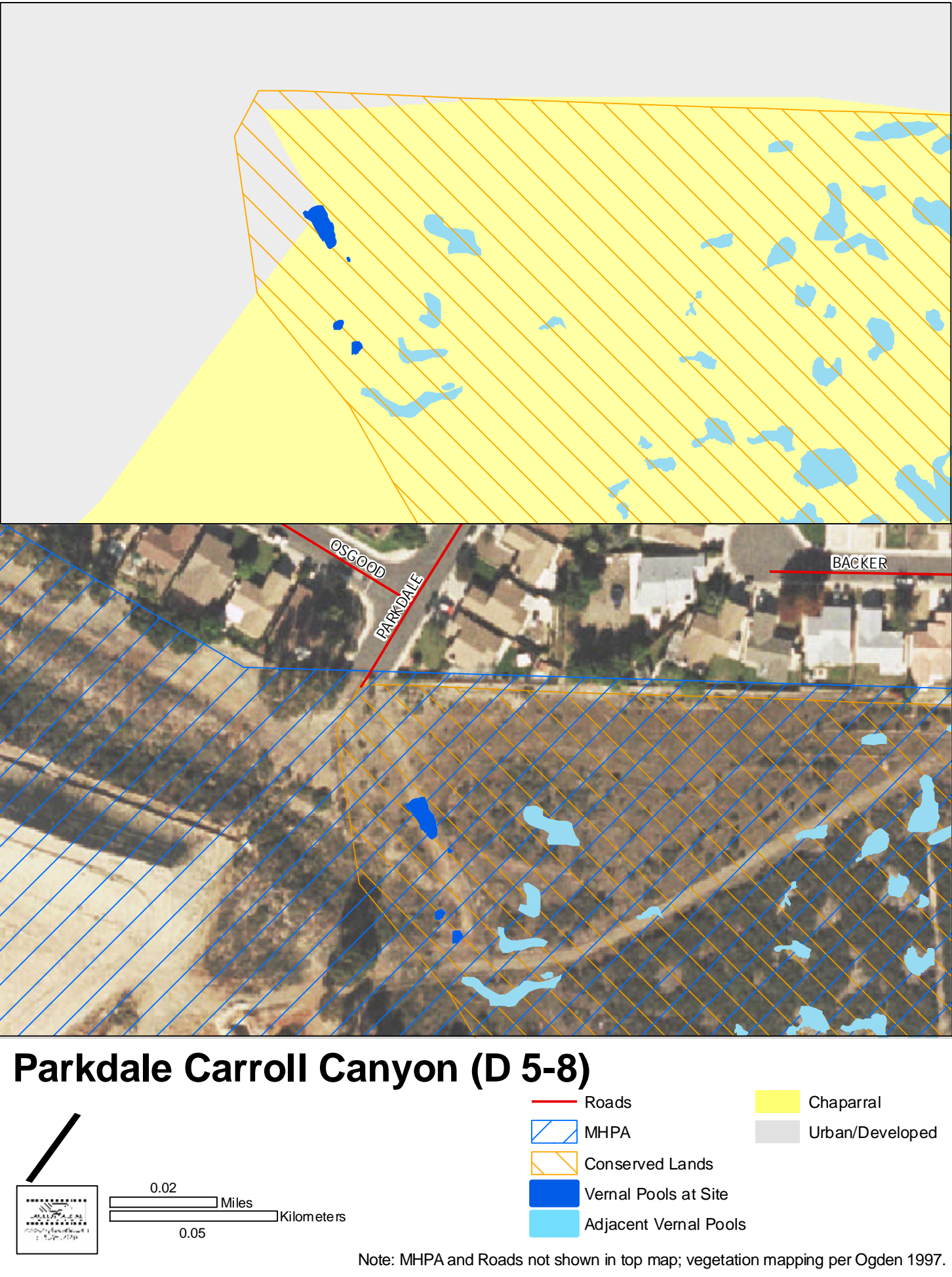
Management Recommendations

Parkdale Carroll Canyon is part of the D 5-8 complex that was identified as necessary to stabilize the populations of *E. aristulatum* and *P. abramsii* by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998). All future management activities should promote the recovery of these species.

The existing fencing should be repaired as necessary to minimize edge effects. Trash removal should also occur as needed.

If it is determined that active management is necessary, it is recommended that volunteers and/or “Friends” groups be utilized for species surveys, litter patrols, weeding, etc. Due to the sensitivity of the habitats, adequate training shall be provided and crews shall be supervised by a qualified biologist.

Figure 17



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